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ABSTRACT

This study delineates characteristics related to suspended, probation, and nonprobation college students. The population of sub-population studies are composed of 1971-72 undergraduates at the University of Wisconsin-Stevens Point, and for some parts the entering freshmen for only 1971-72. By the end of the school year, all students were identified in one of three categories: academically suspended, on academic probation, or "in the clear." The significant differences among students divided into these three categories were determined by mean scores and proportions as they vary for the three groups. Predictors studied were the Omnibus Personality Inventory (OPI) scores, high school size, sex, age, marital status, type of housing, state residency, major, and intercorrelations. Tentative results indicate the OPI can be used to identify potential problem students, successful students tend to have broad general interests, conservative religious convictions, and cooperate with authority figures instead of rebelling. Further research is recommended. (MJM)

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Success Measures
- Academic Status
- GPR

Earmarks (Predictors)
- OPI Subscores
- High School Size
- Sex
- Age
- Marital Status
- Type of Housing
- State Residency
- Major
- Intercorrelations

THE EARMARKS OF COLLEGE SUCCESS
A Causal-Comparative Study

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INTRODUCTION

Causal-comparative studies are not considered by most researchers as the greatest contributor to the growing edge of knowledge. But they do provide broad hints concerning cause and effect relationships which, when pursued, may produce significant new understandings in education. Here the causal-comparative approach is used to understand more fully the characteristics related to college success. Just as the Knapp-Goodrich and Knapp-Greenbaum[1] studies helped identify the characteristics of great American scientists and great American scholars, so the delineation of the characteristics related to suspended, probation, and non-probation college students can help to point to the traits and backgrounds of successful college students as opposed to those who are less successful.

The population or sub-population studies is composed of 1971-72 undergraduates at UW-Stevens Point, and for some parts the entering freshmen only for 1971-72. By the end of the school year, all students were identified in one of three categories: academically suspended, on academic probation, or "in the clear". The significant differences among students divided into these three categories and determined by mean scores and proportions as they vary for the three groups. It is hypothesized that the descriptions of the characteristics of successful students may lead to improved selection and guidance of college students.

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[1] Robert H. Knapp and H. B. Goodrich, Origins of American Scientists. Chicago: University of Chicago Press, 1952. R. H. Knapp and J. J. Greenbaum, Young American Scholar: His College Origins. Chicago: University of Chicago Press, 1953.

Personality Traits: The Omnibus Personality Inventory

One method of distinguishing possible differences in characteristics was through sub-scores on the Omnibus Personality Inventory. This instrument, published by the Psychological Corporation, was administered to freshmen entering in the fall of 1971. The mean scores for undergraduates by sub-test are shown in Table 1. There are thirteen sub-scores and one additional score known as Research Bias (RB). As shown in Table 1, eleven of the fourteen sub-score means differed significantly, most of them at .01 level of confidence. These differences are discussed in the following paragraphs, together with interpretations of their meanings as derived from the OPI Manual. The first scale listed is TI, which stands for Thinking Introversion. Probation freshmen averaged lowest, and non-probation, non-suspended freshmen ranked highest on this scale, with mean differences significant beyond the .01 level. Persons who score high on this measure like reflective thought and academic activities. Thinking extroverts, who score low, show a preference for overt action; they tend to evaluate ideas on the basis of their immediate, practical application. The higher TI scores appear to be most closely associated with college success.

The Theoretical Orientation (TO) scores have mean differences that are not statistically significant. Students "in the clear" averaged highest and probation students averaged lowest on this measure. High scorers indicate a preference for dealing with theoretical concerns and the scientific method.

The Estheticism (ES) scale is a measure of interest in artistic matters and activities. Responses relate to the arts. Mean sub-scores on this measure differed significantly, with students not having academic difficulty scoring highest and probation students lowest.

The CO or Complexity score measures one's attitude or approach to new situations. High scorers are "tolerant of ambiguities and uncertainties; they are fond of novel situations and ideas". On this scale the suspended students scored highest and the non-suspended, non-probation students scored lowest. Mean differences are significant at the .05 level of confidence.

Liberal, non-authoritarian thinking and need for independence is the characteristic measured by the Authoritarian (AU) scale. High scorers are described as being tolerant of viewpoints other than their own. They oppose infringements on the rights of individuals. They show a need to be independent of authority. Probation students averaged lowest on this scale, and students "in the clear" averaged highest. The differences among means were significant at the .01 level of confidence.

Religious Orientation (RO) is the name of a trait measuring the orthodoxy of religious beliefs. High scorers are skeptical of conventional religious beliefs and practices, and tend to reject most of them, especially those that are orthodox or fundamentalistic in nature. Low scorers are manifesting a strong commitment to Judaic - Christian beliefs. Persons scoring around the mean are manifesting a moderate view of religious beliefs and practices. On this scale the suspended students averaged noticeably highest, while the students who were not in academic difficulty averaged lowest. The mean differences were significant at the .01 level of confidence.

Social Extroversion (SE) is a scale reflecting a preferred style of relating to people in a social context. High scorers display a strong interest in being with people; hey seek social activities and gain satisfaction from them. Low scorers are social introverts who tend to withdraw from social contacts and responsibilities. Although suspended students averaged highest on this scale, the differences among means were almost nil, with a critical ratio of near zero.

By far the most startling mean differences were obtained on the 59 item Impulse Expression (IE) scale. This scale assessed a general readiness to express impulse to seek gratification either in conscious thought or in overt action. High scorers have an active imagination, and value sensual reactions and feelings; very high scorers have frequent feelings of rebellion and aggression. Low scorers did not give teachers much trouble in school, were not sent to the principal for misbehaving, do not hate regulations, have never done any heavy drinking, and would be uncomfortable in anything other than conventional dress. On this scale the suspended students averaged 33.45 points. Close behind were the probation students with an average of 32.20 points. The non-probation, non-suspended students averaged 28.81 points. The F ratio comparing among to within variances was 29.9272, leaving little likelihood that chance sampling could have explained the differences in means.

Another lengthy scale was the Personal Intergration or (PI) scale, which included 55 items. High scorers on this scale admit to <u>few</u> attitudes and behaviors that characterize socially alienated or emotionally disturbed persons. Low scorers often intentionally avoid others and experience feelings of hostility and aggression along with feelings of isolation, loneliness, and rejection. Thus a high score indicates a low anxiety level. The non-suspended, non-probation students averaged nearly two points higher on this scale than did suspended and probation students. The spread in means was significant at the .01 level of confidence.

The Anxiety Level (AL) scale registers high scores for persons who deny that they have feelings or symptoms of anxiety, and do not admit being nervous or worried. Low scorers describe themselves as being nervous and high-strung. They may experience some difficulty in adjusting to their social environment, and they tend to have a low opinion of themselves. Thus a low score indicates high anxiety. On this scale the suspended students averaged lowest, with probation students not far behind. The differences among means were not great enough to reject chance.

The Altruism or (AM) scale gets at one's feelings toward others. The high scorer is an affiliative person, trusting and ethical in his relations with others; having a strong concern for the feelings and welfare of people he meets. Low scorers tend not to consider the feelings and welfare of others, and often view people from an impersonal, distant perspective. Academically successful students averaged highest on this scale, and probation students averaged lowest. The mean differences were significant beyond the .01 level of confidence.

The Practical Outlook or (PO) scale yields high scores for those interested in practical, applied activities: those who tend to value material possessions and concrete accomplishments. Low scorers find a greater appeal in ideas than in facts; they do not feel that every person ought to be a booster of his own home town, or that there is only one right answer to most questions. On this scale, students "in the clear" averaged lowest, while probation students averaged a little higher than those who were suspended. The differences in means did not appear great, but they were significant beyond the .01 level of confidence.

Most personality inventories have a Masculinity Femininity (MF) scale, and the Omnibus Personality Inventory is no exception. This scale assesses some of the differences in attitudes and interests between college men and women. High scorers (masculine) deny interest in esthetic matters, and they admit to few adjustment problems, feelings of anxiety, or personal inadequacies. They also tend to be somewhat less socially inclined than low scorers, and more interested in scientific matters. Low scorers (feminine) besides having stronger esthetic and social inclinations, also admit to greater sensitivity and emotionality. The differences in mean scores on this scale were highly significant, with suspended students averaging highest (28.98) and probation students close behind at 28.17. Lowest were the non-suspended, non-probation students who averaged 26.22. Here we need to be cautious in interpretation, for it is known that at UW-SP, women have greater academic success on the average than men. We are faced with a basic question: Is it the scale or sex that delineates the significant differences?

Finally, there is a 28-item Response Bias (RB) scale composed chiefly of items seemingly unrelated to the concept, representing an approach to the student's test-taking attitude. High scorers are responding in a manner similar to a group of students who were explicitly asked to make a good impression by their responses to these items. Low scorers, on the contrary, may be trying to make a bad impression or are indicating a low state of well-being or feelings of depression. The mean scores of the sub-groups differed sharply enough to be significant beyond the .01 level of confidence. Suspended students averaged clearly lowest, and non-suspended, non-probation students averaged clearly highest.

In summary, it was possible to reject chance on eleven of the fourteen sub-tests, ten of them at the .01 level of significance. For further understanding of the meaning and interpretation of the scales, the reader is referred to revised OPI Form F Manual, published by the Psychological Corporation after the 1968 test revision. The author of this report has deliberately avoided the use of the terms "liberal" and "conservative" in the conviction that they are ambiguous. The mean scores of Table I lend some credence to this point of view, since the more successful students have characteristics which in some frames of reference are called liberal, and in others, conservative.

TABLE 1
MEANS AND F-RATIOS OF 1971-72 FRESHMEN
FOR OPI SCALES

OPI Scales	Means			F-Ratios
	Suspended	Probation	Non-Suspended & Non-Probation	
TI	20.54	19.99	21.89	11.3570**
TO	16.87	16.48	17.18	2.5336
ES	10.02	9.80	11.23	14.2561**
CO	16.75	16.06	15.53	4.0735*
AU	23.92	23.06	24.64	6.9383**
RO	13.64	13.01	12.26	8.4081**
SE	22.28	22.10	22.14	0.0250
IE	33.45	32.20	28.81	29.9272**
PI	26.33	26.39	28.26	5.9104**
AL	11.00	11.17	11.67	2.5528
AM	18.75	18.58	20.42	17.5217**
PO	15.48	15.96	14.37	13.4487**
MF	28.98	28.17	26.22	16.2635**
RB	9.76	10.20	11.48	19.8407**

Using $n_1 = 2$ and $n_2 = 1784$, as the number of degrees of freedom, the significant levels were found to be as follows:

* The F-ratio was significant at the 5% level if it was greater than or equal to 3.00.

** The F-ratio was significant at the 1% level if it was greater than or equal to 4.62.

High School Size

The accidental discovery that high school size is related to college success in recent predictive studies has led the author to include this variable in most studies involving the success of college students. In this particular study, high school size is related to academic status for all undergraduates. Intercorrelations among variables are computed separately for each high school size category in order to detect any possible distinguishing characteristics of students from high schools in a given class size.

The distribution of 1971-72 undergraduates according to high school class size and probation status is displayed in Table 2. Perusal of the table shows that the lowest proportion of probation students is found in class size 51-100, where only 6.71% were on probation. Class size 26-50 was next lowest (7.23%) compared to the overall average of 9.23%. Since there are almost no Wisconsin high schools with enrollments as low as 100, the 1-25 class size categories comes largely from out of the status. Since the chi-squared test, when applied to this table yields a chi-squared value that is significant at the .01 level of confidence, it appears that probation status is related to class size.

A similar distribution of undergraduate students according to probation status was made for semester I, 1972-73, which showed class size 51-100 having only 4.92% on probation, while class size 26-50 was next lowest with 6.27%. Whereas the previous semester 9.23% of the undergraduates had probation status, this time only 7.68% were on probation. The differences in probation rate for this latter semester were significant at the .001 level.

TABLE 2

PROBATION STATUS BY HIGH SCHOOL CLASS SIZE CATEGORY

UW-SP UNDERGRADUATES, 1971-72

High School Class Size	Non-Probation	Probation	Totals	Per Cent Probation
1-25	71	9	80	11.25
26-50	372	29	401	7.23
51-100	1182	85	1267	6.71
101-250	2763	267	3030	8.81
251-500	2235	251	2486	10.10
501-750	664	88	752	11.70
Over 750	170	19	189	10.05
Unknown	543	65	608	10.69
TOTALS	8000	813	8813	9.23

$\chi^2 = 21.9705$

$P(\chi^2 \geq 18.475, 7 \text{ d.f.}) = 0.01$ reject chance

TABLE 3

PROBATION STATUS BY HIGH SCHOOL CLASS SIZE CATEGORY
UW-SP UNDERGRADUATES, 1972-73

High School Class Size	Non-Probation	Probation	Totals	Per Cent Probation
1-25	48	4	52	7.69
26-50	254	17	271	6.27
51-100	908	47	955	4.92
101-250	2312	168	2480	6.77
251-500	2024	181	2205	8.21
501-750	676	65	741	8.77
Over 750	184	33	217	15.21
Unknown	982	100	1082	9.24
TOTALS	7388	615	8003	7.68

$\chi^2 = 37.0353$

$P(\chi^2 \geq 24.322, 7 \text{ d.f.}) = 0.001$ reject chance

A similar distribution of suspended students is shown in Table 4. Again class size 51-100 was the favored category, since only 3.79% of these students were suspended. The chi-squared test was applied to the distribution, and the resulting χ^2 value of 10.7740 was short of significance. Chance might have explained these differences.

However, when the probation and suspended students are combined as in Table 6, the expected and observed values differed enough to be significant at the .001 level of confidence. Only 10.50% of the students in the 51-100 class size category were in academic difficulty. The next most favorable class size was 26-50. Although at this point the reasons are not apparent, class size 51-100 has the lowest per cent in academic difficulty, and class size 26-50 has the next lowest.

A similar distribution for undergraduates during the first semester, 1972, again showed highly significant differences (Table 5). This time the lowest suspension rate was for class size 101-250, with class size 51-100 second and class size 26-50 third. The suspension rate overall dropped from 5.17% to 4.74% in one semester.

Table 7 combines probation and suspended students for semester I, 1972-73. Here we see that class size 51-100 has the lowest proportion of students suspended or in academic difficulty. The proportionate differences were again highly significant.

TABLE 4

SUSPENSION STATUS BY HIGH SCHOOL CLASS SIZE CATEGORY
UW-SP UNDERGRADUATES, 1971-72

High School Class Size	Non-Suspended	Suspended	Totals	Per Cent Suspended
1-25	73	7	80	8.75
26-50	377	24	401	5.98
51-100	1219	48	1267	3.79
101-250	2877	153	3030	5.05
251-500	2347	139	2486	5.59
501-750	711	41	752	5.77
Over 750	175	14	189	7.41
Unknown	578	30	608	4.93
TOTALS	8387	456	8813	5.17

$\chi^2 = 10.7740$

$P(\chi^2 \geq 14.067, 7 \text{ d.f.}) = 0.05$ accept chance

TABLE 5

SUSPENSION STATUS BY HIGH SCHOOL CLASS SIZE CATEGORY

UW-SP UNDERGRADUATES, 1972-73

High School Class Size	Non-Suspended	Suspended	Totals	Per Cent Suspended
1-25	49	3	52	5.77
26-50	260	11	271	4.06
51-100	924	31	955	3.25
101-250	2409	71	2480	2.86
251-500	2093	112	2205	5.08
501-750	700	41	741	5.53
Over 750	204	13	217	5.99
Unknown	985	97	1082	8.96
TOTALS	7624	379	8003	4.74

$\chi^2 = 40.8647$

$P(\chi^2 \geq 24.322, 7 \text{ d.f.}) = 0.001$ reject chance

TABLE 6

SUSPENDED AND PROBATION STUDENTS BY HIGH SCHOOL CLASS SIZE CATEGORY

UW-SP UNDERGRADUATES, 1971-72

High School Class Size	Non-Suspended or Probation	Suspended or Probation	Totals	Per Cent Suspended or Probation
1-25	64	16	80	20.00
26-50	348	53	401	13.22
51-100	1134	133	1267	10.50
101-250	2610	420	3030	13.86
251-500	2096	390	2486	15.69
501-750	623	129	752	17.15
Over 750	156	33	189	17.46
Unknown	513	95	608	15.62
TOTALS	7544	1269	8813	14.40

$\chi^2 = 29.0096$

$P(\chi^2 \geq 24.322, 7 \text{ d.f.}) = 0.001$ reject chance

TABLE 7

SUSPENDED AND PROBATION STUDENTS BY HIGH SCHOOL CLASS SIZE CATEGORY

UW-SP UNDERGRADUATES, 1972-73

High School Class Size	Non-Suspended or Probation	Suspended or Probation	Totals	Per Cent Suspended or Probation
1-25	45	7	52	13.46
26-50	243	28	271	10.33
51-100	877	78	955	8.17
101-250	2241	239	2480	9.64
251-500	1912	293	2205	13.29
501-750	635	106	741	14.30
Over 750	171	46	217	21.20
Unknown	885	197	1082	18.21
TOTALS	7009	994	8003	12.42

$\chi^2 = 87.3018$

$P(\chi^2 \geq 24.322, 7 \text{ d.f.}) = 0.001$ reject chance

Probation status by sex of student has been analyzed in Tables 8 and 9, according to semester in school. Since freshmen are comparatively unselected and each succeeding class more highly selected, class and semester in class are used to make proper comparisons in the proportion of probation and suspended students by sex. Without exception, women had a higher proportion who were "in the clear" than did men, in every class category. The differences were greatest for first semester freshmen. In Table 8 we find more than 28% of the freshman men in academic difficulty, compared to only 13.3% of the women. In Table 9 also these differences can be seen, but they are less pronounced among undergraduate men and women for semester I, 1972-73.

The freshmen in their second semester are most likely to be suspended. The proportion of men on probation at the end of the sophomore year was 15.1% for those listed in Table 8 and 13.0% for those in Table 9. For sophomore women, the proportion was 9.7% in both tables.

On the basis of all of the evidence, men tend to have greater academic difficulty than do women.

TABLE 8

DISTRIBUTION OF SEM. I, 1971-72 UNDERGRADUATES BY CLASS, SEX, AND ACADEMIC STATUS

Class	Sex	Academic Status						Total
		Non-Suspended or Probation		Probation		Suspended		
		No.	%	No.	%	No.	%	
Freshmen, 1st Sem.	Males	1031	71.7	275	19.1	132	9.2	1438
	Females	1070	86.7	122	9.9	42	3.4	1234
Freshmen, 2nd Sem.	Males	337	68.5	73	14.8	82	16.7	492
	Females	263	81.9	32	10.0	26	8.1	321
Sophomores, 1st Sem.	Males	646	85.8	78	10.4	29	3.8	753
	Females	586	92.6	38	6.0	9	1.4	633
Sophomores, 2nd Sem.	Males	311	74.4	63	15.1	44	10.5	418
	Females	203	85.3	23	9.7	12	5.0	238
Juniors, 1st Sem.	Males	628	90.2	30	4.3	38	5.5	696
	Females	579	96.8	16	2.7	3	0.5	598
Juniors, 2nd Sem.	Males	288	87.5	19	5.8	22	6.7	329
	Females	232	94.3	11	4.5	3	1.2	246
Seniors, 1st Sem.	Males	484	96.0	13	2.6	7	1.4	504
	Females	473	98.7	6	1.3	-	0.0	479
Seniors, 2nd Sem.	Males	345	95.0	12	3.3	6	1.7	363
	Females	262	98.9	2	0.8	1	0.3	265
GRAND TOTALS		7738	85.9	813	9.0	456	5.1	9007

TABLE 9

DISTRIBUTION OF SEM. I, 1972-73 UNDERGRADUATES BY CLASS, SEX, AND ACADEMIC STATUS

Class	Sex	Academic Status						Total
		Non-Suspended or Probation		Probation		Suspended		
		No.	%	No.	%	No.	%	
Freshmen, 1st Sem.	Males	825	73.5	206	18.4	91	8.1	1122
	Females	808	85.1	110	11.6	31	3.3	949
Freshmen, 2nd Sem.	Males	323	78.0	34	8.2	57	13.8	414
	Females	224	81.8	25	9.1	25	9.1	274
Sophomores, 1st Sem.	Males	525	85.8	56	9.1	31	5.1	612
	Females	551	93.2	29	4.9	11	1.9	591
Sophomores, 2nd Sem.	Males	364	80.2	59	13.0	31	6.8	454
	Females	224	83.9	26	9.7	17	6.4	267
Juniors, 1st Sem.	Males	496	88.7	26	4.7	37	6.6	559
	Females	509	98.3	5	1.0	4	0.7	518
Juniors, 2nd Sem.	Males	327	91.1	15	4.2	17	4.7	359
	Females	206	95.8	2	0.9	7	3.3	215
Seniors, 1st Sem.	Males	541	96.6	9	1.6	10	1.8	560
	Females	457	99.1	4	0.9	-	0.0	461
Seniors, 2nd Sem.	Males	391	95.6	8	2.0	10	2.4	409
	Females	238	99.6	1	0.4	-	0.0	239
GRAND TOTALS		7009	87.6	615	7.7	379	4.7	8003

The next possible predictor to be examined is age. In Tables 10 and 11, students were divided into age ranges 18-24 and 25 & Over. In these tables, expected (proportionate) values are found in parentheses. In both cases fewer than the expected number of older students were suspended, but a higher than the expected proportion of older students were on probation. The differences in proportions could have occurred about 10% of the time by chance, so they could not be called significant.

TABLE 10

AGE RANGE AND ACADEMIC STATUS: UNDERGRADUATES, UW-SP SEM. I, 1971-72

Age Range	Academic Status			
	Suspended	Probation	Neither	Totals
18-24	(45.8) 44	(326.6) 337	(6936.6) 6928	7309
25 & Over	(6.2) 8	(44.4) 34	(942.4) 951	993
TOTALS	52	371	7879	8302

$\chi^2 = 3.4495$

P ($\chi^2 \geq 4.605$, 2 d.f.) = 0.20 accept chance

TABLE 11

AGE RANGE AND ACADEMIC STATUS: UNDERGRADUATES, UW-SP SEM. I, 1972-73

Age Range	Academic Status			
	Suspended	Probation	Neither	Totals
18-24	(338.0) 336	(548.5) 564	(6251.4) 6238	7138
25 & Over	(41.0) 43	(66.5) 51	(757.6) 771	865
TOTALS	379	615	7009	8003

$\chi^2 = 4.4179$

P ($\chi^2 \geq 4.605$, 2 d.f.) = 0.10 accept chance

Marital status also was related to academic success, as shown in Tables 12 and 13. According to Table 12, the student mortality rate among freshmen is highest for single students. Beyond the freshman year, the mortality rate is generally highest for married students. For seniors, the differences are slight.

A somewhat different picture is presented in Table 13 which represents undergraduates of semester I, 1972-73. Here single first semester freshman students had a slight advantage in proportion of students who were in the clear. For the second semester married students had an advantage. Single sophomores were favored, but among juniors and seniors (class number 5, 6, 7, and 8) the advantage sometimes went to single students and sometimes to married students. Overall, 87.3% of all single students and 90.4% of all married students were in the clear.

TABLE 12

DISTRIBUTION OF SEM. I, 1971-72 UNDERGRADUATES BY CLASS, MARITAL STATUS, AND ACADEMIC STATUS

Class	Marital Status	Academic Status						Total
		Suspended		Probation		Neither		
		No.	%	No.	%	No.	%	
1	Single	169	6.6	382	15.1	1988	78.3	2539
	Married	5	3.8	15	11.2	113	85.0	133
2	Single	105	14.0	104	13.8	542	72.2	751
	Married	3	4.8	1	1.6	58	93.6	62
3	Single	35	2.7	105	8.0	1167	89.3	1307
	Married	3	3.8	11	13.9	65	82.3	79
4	Single	51	9.0	74	13.0	443	78.0	568
	Married	5	5.7	12	13.6	71	80.7	88
5	Single	35	3.1	34	3.0	1059	93.9	1128
	Married	6	3.6	12	7.2	148	87.2	166
6	Single	19	4.4	20	4.6	394	91.0	433
	Married	6	4.2	10	7.1	126	88.7	142
7	Single	5	0.6	14	1.7	801	97.7	820
	Married	2	1.2	5	3.1	156	95.7	163
8	Single	5	1.2	5	1.2	395	97.6	405
	Married	2	0.9	9	4.0	212	95.1	223
TOTALS		456	5.1	813	9.0	7738	85.9	9007
ALL STUDENTS								
	Single	424	5.3	738	9.3	6789	85.4	7951
	Married	32	3.0	75	7.1	949	89.9	1056

TABLE 13

DISTRIBUTION OF SEM. I, 1972-73 UNDERGRADUATES BY CLASS, MARITAL STATUS, AND ACADEMIC STATUS

Class	Marital Status	Academic Status						
		Suspended		Probation		Neither		Total
		No.	%	No.	%	No.	%	
1	Single	114	5.7	308	15.4	1582	78.9	2004
	Married	8	11.9	8	11.9	51	76.2	67
2	Single	80	12.4	55	8.5	511	79.1	646
	Married	2	4.8	4	9.5	36	85.7	42
3	Single	37	3.2	78	6.9	1022	89.9	1137
	Married	5	7.6	7	10.6	54	81.8	66
4	Single	44	6.8	74	11.5	525	81.7	643
	Married	4	5.1	11	14.1	63	80.8	78
5	Single	36	3.6	24	2.5	918	93.9	978
	Married	5	5.0	7	7.1	87	87.9	99
6	Single	22	5.0	12	2.7	407	92.3	441
	Married	2	1.5	5	3.8	126	94.7	133
7	Single	5	0.6	10	1.2	846	98.2	861
	Married	5	3.1	3	1.9	152	95.0	160
8	Single	10	2.1	7	1.5	460	96.4	477
	Married	-	0.0	2	1.2	169	98.8	171
TOTALS		379	4.7	615	7.7	7009	87.6	8003
ALL STUDENTS								
	Single	348	4.8	568	7.9	6271	87.3	7187
	Married	31	3.8	47	5.8	738	90.4	816

Academic status is related to type of housing in Tables 14 and 15. Four types of student housing are categorized: residence hall, home or relative, commuters over 15 miles, and "other". This latter category includes largely students who live near the campus, but not in residence halls. Many of these students have lived in unsupervised housing. Again the variable of class is controlled when comparisons are made. The number "1" refers to first semester freshmen, while "8" refers to second semester seniors.

Other variables than class are not well controlled in Tables 14 and 15. Most students entering as freshmen on probation lived in residence halls. This might explain why a higher proportion of residence hall second semester freshmen were suspended. The proportion of freshmen and sophomores (categories 1-4) who were in academic difficulty was highest for the "other" category of housing. Most juniors and seniors fall in the "other" category of housing, and upperclassmen in this category did not appear at significant academic disadvantage.

Tables 14 and 15 show similarities in patterns of academic performance by housing. Residence hall freshmen ranked well the first semester but lower for the second semester. The "other" category in both cases have relatively fewer students in the clear among freshmen. Here the similarities ended, except that commuters came out well in both cases, especially for upperclass students. It is difficult to draw any firm conclusions as to which type of housing is most favorable from these tables, except that the "other" category is not very favorable for underclassmen.

TABLE 14

DISTRIBUTION OF SEM. I, 1971-72 UNDERGRADUATES BY CLASS, TYPE OF HOUSING, AND ACADEMIC STATUS

Class	Type of Housing	Academic Status						Total
		Suspended		Probation		Neither		
		No.	%	No.	%	No.	%	
1	Res. Hall	86	4.6	288	15.3	1510	80.1	1884
	Home or Rel.	22	6.5	42	12.3	277	81.2	341
	Commuter 15 Plus	8	6.7	16	13.5	95	79.8	119
	Other	58	17.7	51	15.5	219	66.8	328
2	Res. Hall	64	13.5	62	13.1	349	73.4	475
	Home or Rel.	8	9.0	12	13.5	69	77.5	89
	Commuter 15 Plus	2	5.0	5	12.5	33	82.5	40
	Other	34	16.3	26	12.4	149	71.3	209
3	Res. Hall	16	1.9	48	5.6	793	92.5	857
	Home or Rel.	4	2.6	19	12.3	132	85.1	155
	Commuter 15 Plus	3	4.7	6	9.4	55	85.9	64
	Other	15	4.8	43	13.9	252	81.3	310
4	Res. Hall	8	6.2	17	13.2	104	80.6	129
	Home or Rel.	6	6.6	11	12.1	74	81.3	91
	Commuter 15 Plus	1	1.8	6	10.7	49	87.5	56
	Other	41	10.8	52	13.7	287	75.5	380
5	Res. Hall	5	1.5	15	4.3	326	94.2	346
	Home or Rel.	2	1.3	7	4.6	143	94.1	152
	Commuter 15 Plus	6	6.2	6	6.2	85	87.6	97
	Other	28	4.0	18	2.6	653	93.4	699
6	Res. Hall	1	1.8	4	7.0	52	91.2	57
	Home or Rel.	4	3.9	8	7.8	90	88.3	102
	Commuter 15 Plus	3	4.4	5	7.3	61	88.3	69
	Other	17	4.9	13	3.8	317	91.3	347
7	Res. Hall	-	0.0	-	0.0	116	100.0	116
	Home or Rel.	1	0.7	5	3.4	140	95.9	146
	Commuter 15 Plus	1	1.1	4	4.3	89	94.6	94
	Other	5	0.8	10	1.6	612	97.6	627
8	Res. Hall	2	6.1	-	0.0	31	93.9	33
	Home or Rel.	1	0.7	6	3.9	148	95.4	155
	Commuter 15 Plus	-	0.0	3	3.0	96	97.0	99
	Other	4	1.2	5	1.5	332	97.3	341
TOTALS		456	5.1	813	9.0	7738	85.9	9007
ALL STUDENTS								
	Res. Hall	182	4.7	434	11.1	3281	84.2	3897
	Home or Rel.	48	3.9	110	8.9	1073	87.2	1231
	Commuter 15 Plus	24	3.8	51	8.0	563	88.2	638
	Other	202	6.2	218	6.7	2821	87.1	3241

TABLE 15

DISTRIBUTION OF SEM. I, 1972-73 UNDERGRADUATES BY CLASS, TYPE OF HOUSING, AND ACADEMIC STATUS

Class	Type of Housing	Academic Status						Total
		Suspended		Probation		Neither		
		No.	%	No.	%	No.	%	
1	Res. Hall	75	4.7	243	15.1	1284	80.2	1602
	Home or Rel.	8	3.9	38	18.6	158	77.5	204
	Commuter 15 Plus	8	13.8	9	15.5	41	70.7	58
	Other	31	15.0	26	12.6	150	72.4	207
2	Res. Hall	57	12.3	44	9.4	364	78.3	465
	Home or Rel.	4	5.9	3	4.4	61	89.7	68
	Commuter 15 Plus	4	12.9	-	0.0	27	87.1	31
	Other	17	13.7	12	9.7	95	76.6	124
3	Res. Hall	6	0.7	50	5.9	792	93.4	848
	Home or Rel.	10	8.9	7	6.3	95	84.8	112
	Commuter 15 Plus	4	8.5	2	4.3	41	87.2	47
	Other	22	11.2	26	13.3	148	75.5	196
4	Res. Hall	11	6.4	26	15.1	135	78.5	172
	Home or Rel.	6	7.5	7	8.7	67	83.8	80
	Commuter 15 Plus	2	4.3	7	14.9	38	80.8	47
	Other	29	6.9	45	10.7	348	82.4	422
5	Res. Hall	10	3.2	6	2.0	292	94.8	308
	Home or Rel.	5	6.4	4	5.1	69	88.5	78
	Commuter 15 Plus	1	2.0	-	0.0	50	98.0	51
	Other	25	3.9	21	3.3	594	92.8	640
6	Res. Hall	4	8.3	2	4.2	42	87.5	48
	Home or Rel.	1	1.2	5	6.1	76	92.7	82
	Commuter 15 Plus	-	0.0	2	3.6	53	96.4	55
	Other	19	4.9	8	2.1	362	93.0	389
7	Res. Hall	1	0.9	4	3.8	101	95.3	106
	Home or Rel.	3	2.9	2	1.9	98	95.2	103
	Commuter 15 Plus	-	0.0	1	1.1	87	98.9	88
	Other	6	0.8	6	0.8	712	98.4	724
8	Res. Hall	1	3.1	1	3.1	30	93.8	32
	Home or Rel.	1	1.0	1	1.0	96	98.0	98
	Commuter 15 Plus	-	-	-	-	66	100.0	66
	Other	8	1.8	7	1.5	437	96.7	452
TOTALS		379	4.7	615	7.7	7009	87.6	8003
ALL STUDENTS								
	Res. Hall	165	4.6	376	10.5	3040	84.9	3581
	Home or Rel.	38	4.6	67	8.1	720	87.3	825
	Commuter 15 Plus	19	4.3	21	4.7	403	91.0	443
	Other	157	5.0	151	4.8	2846	90.2	3154

Attention is turned next to state residence vs non-residence as a predictor of academic status. Do Wisconsin residents perform better or poorer than non-residents? It has previously been demonstrated that non-residents on the average ranked much lower in their high school classes than did Wisconsin residents.[2] Is this fact reflected in lower academic performance? The percentages revealed in Tables 16 and 17 answer this question quite clearly. At each class level, Wisconsin residents had a higher percentage of students who were neither suspended nor on probation. The spread in percentage was much greater in Table 17, representing 1972-73 students. In 1971-72, 86.1% of the Wisconsin resident students were in the clear, compared to 81.1% of the out-of-state students. In 1972-73, 88.3% of the Wisconsin students had escaped suspension and probation, compared to 76.9% of the out-of-state students. Out-of-state students comprised about 6.4% of the undergraduate total in 1972-73, but only about 4.6% of the total in 1971-72.

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[2] See: William H. Clements, Profile of Student Quality, Office of Institutional Research, UW-Stevens Point. June, 1971, P. 38

TABLE 16

DISTRIBUTION OF SEM. I, 1971-72 UNDERGRADUATES BY CLASS, STATE RESIDENCE, AND ACADEMIC STATUS

Class	Residency	Academic Status						Total
		Suspended		Probation		Neither		
		No.	%	No.	%	No.	%	
1	In State	163	6.4	377	14.9	1993	78.7	2533
	Out of State	11	7.9	20	14.4	108	77.7	139
2	In State	103	13.3	95	12.3	573	74.3	771
	Out of State	5	11.9	10	23.8	27	64.3	42
3	In State	36	2.7	107	8.1	1175	89.2	1318
	Out of State	2	2.9	9	13.2	57	83.8	68
4	In State	51	8.3	80	13.1	480	78.6	611
	Out of State	5	11.1	6	13.3	34	75.6	45
5	In State	39	3.1	43	3.5	1159	93.4	1241
	Out of State	2	3.8	3	5.7	48	90.5	53
6	In State	24	4.4	28	5.1	501	90.6	553
	Out of State	1	4.5	2	9.1	19	86.4	22
7	In State	5	0.5	18	1.9	928	97.6	951
	Out of State	2	6.2	1	3.1	29	90.6	32
8	In State	7	1.1	14	2.3	590	96.6	611
	Out of State	-	0.0	-	0.0	17	100.0	17
TOTALS		456	5.1	813	9.0	7738	85.9	9007
ALL STUDENTS								
	In State	428	5.0	762	8.9	7399	86.1	8589
	Out of State	28	6.7	51	12.2	339	81.1	418

TABLE 17

DISTRIBUTION OF SEM. I, 1972-73 UNDERGRADUATES BY CLASS, STATE RESIDENCE, AND ACADEMIC STATUS

Class	Residency	Academic Status						Total
		Suspended		Probation		Neither		
		No.	%	No.	%	No.	%	
1	In State	104	5.5	283	15.0	1500	79.5	1887
	Out of State	18	9.8	33	17.9	133	72.3	184
2	In State	75	11.8	52	8.1	512	80.1	639
	Out of State	7	14.3	7	14.3	35	71.4	49
3	In State	37	3.3	76	6.7	1021	90.0	1134
	Out of State	5	7.3	9	13.0	55	79.7	69
4	In State	43	6.5	71	10.7	551	82.8	665
	Out of State	5	8.9	14	25.0	37	66.1	56
5	In State	32	3.2	28	2.8	949	94.0	1009
	Out of State	9	13.2	3	4.4	56	82.4	68
6	In State	22	4.0	15	2.7	512	93.3	549
	Out of State	2	8.0	2	8.0	21	84.0	25
7	In State	8	0.8	10	1.0	959	98.2	977
	Out of State	2	4.6	3	6.8	39	88.6	44
8	In State	10	1.6	9	1.4	610	97.0	629
	Out of State	-	0.0	-	0.0	19	100.0	19
TOTALS		379	4.7	615	7.7	7009	87.6	8003
ALL STUDENTS								
	In State	331	4.4	544	7.3	6614	88.3	7489
	Out of State	48	9.3	71	13.8	395	76.9	514

Analysis By Major

Another possible predictor of academic status is the chosen first major field of study. An answer is sought to the question: Is first major field of study related in any way to academic suspension or probation status? It was the intention of the investigator to limit this analysis to undergraduate students only, but the printout obtained for this purpose did not sort out specials and graduate students, hence they are included in calculation of the percentages even though few were suspended or on probation. When Table 18 was derived, it contained all majors, whereas Table 19, for semester I, 1972-73, specified first majors. The difficulty of separating majors made it necessary to follow printout plans that were previously arranged for other purposes than this study. These differences should be kept in mind when the tables are examined.

Perusal of Table 18 reveals that several majors having substantial enrollments had high proportions of suspended and probation students. These include business administration, forestry, resource management, wildlife, and those who were undecided about a major. Other majors involving large numbers of students, such as deaf education, elementary education, home economics education, mathematics, and water resources had fewer than 8% of students in academic difficulty. Small number of majors produce greater likelihood that chance sampling could explain the differences in proportions. Thus, for example, american civilization majors numbered only 13, but though all were in the clear, chance sampling could produce the phenomenon.

Table 19 gives some parallel findings and some differences. The favored major in this table include communicative disorders, elementary education, home economics education, music, and political science. Again forestry and wildlife majors ranked among the lowest in proportion of students who were in the clear. Significantly, there is evidence of softening of standards between 1971-72 and 1972-73, since the percentage of students in the clear increased in one year from 86.6% to 88.3%.

TABLE 18

DISTRIBUTION OF SEM. I, 1971-72 UNDERGRADUATES, SPECIALS, AND GRADUATES BY INTENDED MAJOR, AND ACADEMIC STATUS

Major	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
Accounting	14	87.5	1	6.3	1	6.2	16
Amer. Civilization	13	100.0	-	0.0	-	0.0	13
Architecture	14	93.3	1	6.7	-	0.0	15
Art	195	85.6	22	9.6	11	4.8	228
Art Education	39	90.7	3	7.0	1	2.3	43
Biology	346	86.3	33	8.2	22	5.5	401
Bus. Administration	456	80.7	70	12.4	39	6.9	565
Bus. Education	81	92.0	7	8.0	-	0.0	88
Chemistry	92	92.0	5	5.0	3	3.0	100
Commun. & Drama Ed.	7	100.0	-	0.0	-	0.0	7
Comm. Disorders	227	90.8	15	6.0	8	3.2	250
Communication	151	90.4	10	6.0	6	3.6	167
Computer Science	1	100.0	-	0.0	-	0.0	1
Deaf Education	120	92.3	8	6.2	2	1.5	130
Dentistry	12	75.0	2	12.5	2	12.5	16
Dietetics	37	88.1	2	4.8	3	7.1	42
Drama	49	86.0	6	10.5	2	3.5	57
Economics	58	89.2	2	3.1	5	7.7	65
Elem. Education	1239	92.1	66	4.9	40	3.0	1345
Engineering	14	66.7	5	23.8	2	9.5	21
English	333	91.7	23	6.4	7	1.9	363
Food & Nutrition	29	93.6	1	3.2	1	3.2	31
Forestry	260	76.7	53	15.6	26	7.7	339
French	33	100.0	-	0.0	-	0.0	33
General Science	39	86.7	4	8.9	2	4.4	45
Geography	107	87.7	9	7.4	6	4.9	122
Geology	2	100.0	-	0.0	-	0.0	2
German	39	97.5	-	0.0	1	2.5	40
History	329	91.4	18	5.0	13	3.6	360
Home Ec. - Gen.	19	79.2	4	16.7	1	4.1	24

TABLE 18 - Continued

Major	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
Home Ec. - Educ.	201	93.9	10	4.7	3	1.4	214
Home Ec. in Bus.	121	86.4	11	7.9	8	5.7	140
Law	18	78.3	3	13.0	2	8.7	23
Library Sci.	1	100.0	-	0.0	-	0.0	1
Mathematics	245	92.5	18	6.8	2	0.7	265
Medical Tech.	111	90.2	9	7.3	3	2.5	123
Medicine	30	88.2	3	8.8	1	3.0	34
Mortuary Science	1	50.0	1	50.0	-	0.0	2
Music	192	91.0	13	6.2	6	2.8	211
Music Educ.	23	92.0	-	0.0	2	8.0	25
Music Lit.	1	100.0	-	0.0	-	0.0	1
Nursing	23	92.0	1	4.0	1	4.0	25
Optometry	4	80.0	1	20.0	-	0.0	5
Pharmacy	9	75.0	3	25.0	-	0.0	12
Philosophy	32	91.4	1	2.9	2	5.7	35
Phy. Ed. - Men	11	73.3	3	20.0	1	6.7	14
Phy. Ed. - Women	142	86.6	18	11.0	4	2.4	164
Phys. Therapy	10	83.3	2	16.7	-	0.0	12
Physics	32	86.5	3	8.1	2	5.4	37
Political Science	199	90.9	11	5.0	9	4.1	219
Psychology	274	87.5	22	7.0	17	5.5	313
Pulp & Paper	4	80.0	1	20.0	-	0.0	5
Reading	1	100.0	-	0.0	-	0.0	1
Resource Mgmt.	286	76.9	52	14.0	34	9.1	372
Russia/E. Cent.	4	100.0	-	0.0	-	0.0	4
Russian	-	0.0	1	100.0	-	0.0	1
Soc. & Anthrop.	337	90.8	16	4.3	18	4.9	371
Social Science	86	89.6	8	8.3	2	2.1	96
Social Work	18	90.0	2	10.0	-	0.0	20
Soil Science	24	92.3	2	7.7	-	0.0	26
Spanish	36	100.0	-	0.0	-	0.0	36
Theology	1	100.0	-	0.0	-	0.0	1

TABLE 18 - Continued

Major	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
Undecided	931	79.6	157	13.4	82	7.0	1170
Unknown	47	90.4	3	5.8	2	3.8	52
Veterinary Sci.	7	87.5	-	0.0	1	12.5	8
Water Resources	122	93.1	6	4.6	3	2.3	131
Wildlife	400	75.0	82	15.4	51	9.6	533
TOTALS	8339	86.6	833	8.6	460	4.8	9632

TABLE 19

DISTRIBUTION OF SEM. I, 1972-73 UNDERGRADUATES, SPECIALS, AND GRADUATES BY INTENDED MAJOR, AND ACADEMIC STATUS

Major	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
Accounting	12	85.7	2	14.3	-	0.0	14
Amer. Civilization	7	77.8	1	11.1	1	11.1	9
Architecture	11	73.4	2	13.3	2	13.3	15
Art	202	89.4	14	6.2	10	4.4	226
Art Education	22	100.0	-	0.0	-	0.0	22
Biology	327	91.1	19	5.3	13	3.6	359
Bus. Administration	400	82.4	57	11.8	28	5.8	485
Bus. Education	68	88.3	5	6.5	4	5.2	77
Chemistry	64	92.8	3	4.3	2	2.9	69
Chiropractic	1	100.0	-	0.0	-	0.0	1
Commun. & Drama Ed.	13	92.9	1	7.1	-	0.0	14
Comm. Disorders	238	94.4	10	4.0	4	1.6	252
Communication	158	88.8	10	5.6	10	5.6	178
Computer Science	1	100.0	-	0.0	-	0.0	1
Deaf Education	143	92.2	8	5.2	4	2.6	155
Dentistry	17	94.4	1	5.6	-	0.0	18
Dietetics	65	97.0	1	1.5	1	1.5	67
Drama	66	98.5	1	1.5	-	0.0	67
Early Childhood	70	97.2	1	1.4	1	1.4	72
Economics	52	85.2	5	8.2	4	6.6	61
Elem. Education	715	93.2	33	4.3	19	2.5	767
Engineering	11	68.8	5	31.2	-	0.0	16
English	239	88.5	18	6.7	13	4.8	270
Food & Nutrition	39	84.8	6	13.0	1	2.2	46
Forestry	270	78.9	45	13.2	27	7.9	342
French	23	95.8	1	4.2	-	0.0	24
General Science	41	100.0	-	0.0	-	0.0	41
Geography	96	91.4	4	3.8	5	4.8	105
Geology	2	100.0	-	0.0	-	0.0	2
German	31	96.9	1	3.1	-	0.0	32

TABLE 19 - Continued

Major	Academic Status						
	Non-Suspended or Probation		Probation		Suspended		Total
	No.	%	No.	%	No.	%	
History	265	90.1	17	5.8	12	4.1	294
Home Ec. - Gen.	2	100.0	-	0.0	-	0.0	2
Home Ec. - Educ.	184	95.3	7	3.6	2	1.1	193
Home Ec. in Bus.	134	91.8	10	6.8	2	1.4	146
Latin Amer. Study	1	100.0	-	0.0	-	0.0	1
Law	28	73.7	6	15.8	4	10.5	38
Mathematics	197	92.0	10	4.7	7	3.3	214
Medical Tech.	119	90.8	7	5.4	5	3.8	131
Medicine	29	85.3	3	8.8	2	5.9	34
Mortuary Science	2	50.0	2	50.0	-	0.0	4
Music	210	93.3	5	2.2	10	4.5	225
Music Educ.	35	100.0	-	0.0	-	0.0	35
Music Lit.	2	100.0	-	0.0	-	0.0	2
Nat. Resources	22	84.6	3	11.5	1	3.9	26
Nursing	25	92.6	1	3.7	1	3.7	27
Optometry	5	100.0	-	0.0	-	0.0	5
Pharmacy	9	64.3	3	21.4	2	14.3	14
Philosophy	42	95.5	2	4.5	-	0.0	44
Phy. Ed. - Men	12	75.0	3	18.8	1	6.2	16
Phy. Ed. - Women	114	86.4	12	9.1	6	4.5	132
Phys. Therapy	10	100.0	-	0.0	-	0.0	10
Physics	21	84.0	4	16.0	-	0.0	25
Political Science	205	94.0	5	2.3	8	3.7	218
Psychology	263	90.4	16	5.5	12	4.1	291
Pulp & Paper	27	87.1	3	9.7	1	3.2	31
Reading	7	100.0	-	0.0	-	0.0	7
Resource Mgmt.	283	84.0	41	12.2	13	3.8	337
Russia/E. Cent.	3	100.0	-	0.0	-	0.0	3
Soc. & Anthrop.	269	90.6	15	5.0	13	4.4	297
Social Science	62	94.0	4	6.0	-	0.0	66
Social Work	10	76.9	1	7.7	2	15.4	13
Soil Science	23	85.2	2	7.4	2	7.4	27

TABLE 19 - Continued

Major	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
Spanish	31	88.6	4	11.4	-	0.0	35
Theology	1	100.0	-	0.0	-	0.0	1
Undecided	891	84.9	94	8.9	65	6.2	1050
Unknown	22	81.5	1	3.7	4	14.8	27
Veterinary Sci.	7	100.0	-	0.0	-	0.0	7
Water Resources	115	88.5	7	5.4	8	6.1	130
Wildlife	437	77.5	80	14.2	47	8.3	564
TOTALS	7528	88.3	622	7.3	379	4.4	8529

The GPR and High School Size

The criterion used to denote academic success has, up to this point, been chiefly academic status. We now turn to the grade point ratio (GPR) average as a criterion and to compare averaged GPR's of students from various high school class sizes. Since there may be differences in student quality according to class size, it is proper to refer to high school rank averages before concluding that one high school size is superior to ancther.

Tables 20, 21, and 22 give averaged grade point ratio by class and high school size for UW-SP undergraduates for three consecutive recent semesters, together with the number of cases on which each average was based. When these tables are examined, it is immediately apparent that the patterns are similar. Overall grade point ratio averages are highest for the smaller class sizes. Only in Table 21 are class ranks divided into first and second semester freshmen, first and second semester sophomores, etc. Surprisingly, the averages differ greatly within these classes. To illustrate, for class size 1-25, first semester freshmen averaged 2.03 while second semester freshmen averaged 2.50. For the same class size, the senior averages were 3.08 and 2.59 respectively. The distributions are based on small numbers of cases and are therefore unstable. Class size 101-250, with 3030 total cases, has a much more consistent pattern: for every class the average for the first semester is higher than for the second. Since the data are for semester II, 1971-72, a second semester freshman is one who entered in the fall of 1971. The overall averages favor those who entered during the first semester.

An interesting phenomenon is observed when the ratio of the number of seniors to number of freshmen is computed and reduced to a decimal fraction, shown as follows: (taken from Table 21).

Class Size	Seniors/Freshmen	Ratio Decimal
1-25	26/16	1.62
26-50	114/115	0.99
51-100	270/406	0.67
101-250	520/1164	0.45
251-500	385/1024	0.38
501-750	110/349	0.32
Over 750	16/100	0.16
Unknown	100/278	0.36

One could generalize from these data that the larger the class size, the smaller the ratio of the number of seniors to number of freshmen. We shall speculate in the conclusions what this generalization means. But perusal of Tables 20 and 22 indicates that this rule is not peculiar to Table 21.

The "unknown" category of high school class size is a special case. Most of these are older students for whom, when they entered school, high school size and ACT scores were not available. These students may often have ranked low in their high school classes, but they are generally highly motivated, being older. This may explain why their academic performance is on the average superior to that of students from the larger high school class sizes.

Noticeable deterioration in GPR for larger class sizes begins to appear at class size 101-250, and continues to larger class sizes. This coincides exactly with previous findings.

TABLE 20

AVERAGED GPR BY CLASS AND HIGH SCHOOL CLASS SIZE
UNDERGRADUATE STUDENTS, SEMESTER I, 1971-72

H.S. Class Size	Freshmen		Sophomores		Juniors		Seniors		Total	
	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR
1-25	16	2.13	18	2.28	20	2.72	26	2.79	80	2.53
26-50	115	2.00	73	2.40	99	2.59	115	2.86	402	2.46
51-100	406	2.12	293	2.51	299	2.66	270	2.71	1268	2.46
101-250	1165	2.25	716	2.44	632	2.59	522	2.71	3035	2.40
251-500	1025	2.11	579	2.46	504	2.57	386	2.70	2494	2.37
501-750	350	2.07	168	2.48	127	2.49	110	2.66	755	2.32
Over 750	100	2.01	44	2.55	29	2.72	16	2.84	189	2.16
Unknown	308	2.40	151	2.62	159	2.60	166	2.75	784	2.56
TOTALS	3485	2.14	2042	2.47	1869	2.59	1611	2.72	9007	2.41

TABLE 21

AVERAGED GPR BY CLASS AND HIGH SCHOOL CLASS SIZE

UNDERGRADUATE STUDENTS, SEMESTER II, 1971-72

H.S. Class Size	FRESHMEN				SOPHOMORES				JUNIORS				SENIORS				TOTAL	
	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6		Class 7		Class 8			
	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR
1-25	12	2.03	4	2.50	11	2.45	7	2.18	12	2.46	8	2.99	11	3.08	15	2.59	80	2.65
26-50	86	2.10	29	2.14	46	2.63	27	2.31	62	2.75	37	2.53	66	2.85	48	2.76	401	2.65
51-100	292	2.23	114	2.13	212	2.60	80	2.37	218	2.73	81	2.54	183	2.76	87	2.67	1267	2.60
101-250	899	2.20	265	2.16	456	2.58	259	2.31	450	2.65	181	2.43	337	2.73	183	2.65	3030	2.54
251-500	805	2.14	219	2.17	391	2.58	187	2.27	336	2.66	163	2.46	235	2.71	150	2.66	2486	2.52
501-750	257	2.11	92	2.09	128	2.53	38	2.39	94	2.59	33	2.44	73	2.65	37	2.59	752	2.46
Over 750	70	2.16	30	1.92	31	2.71	13	2.45	26	2.70	3	2.57	12	2.77	4	2.87	189	2.52
Unknown	233	2.45	45	2.53	78	2.67	30	2.50	75	2.56	47	2.51	41	2.78	59	2.73	608	2.59
GRAND TOTALS	2654	2.20	798	2.16	1353	2.59	641	2.33	1273	2.67	553	2.48	958	2.74	583	2.66	8813	2.55

TABLE 22

AVERAGED GPR BY CLASS AND HIGH SCHOOL CLASS SIZE

UNDERGRADUATE STUDENTS, SEMESTER I, 1972-73

H.S. Class Size	Freshmen		Sophomores		Juniors		Seniors		Total	
	No.	GPR	No.	GPR	No.	GPR	No.	GPR	No.	GPR
1-25	13	1.90	10	2.89	13	2.66	16	2.87	52	2.58
26-50	85	2.18	54	2.46	50	2.79	82	2.82	271	2.54
51-100	269	2.27	210	2.60	218	2.72	258	2.81	955	2.59
101-250	855	2.22	586	2.61	504	2.69	535	2.78	2480	2.53
251-500	835	2.15	539	2.56	427	2.70	404	2.78	2205	2.47
501-750	318	2.20	183	2.49	133	2.74	107	2.74	741	2.44
Over 750	97	1.99	56	2.47	39	2.75	25	2.83	217	2.35
Unknown	287	2.07	286	2.36	267	2.59	242	2.78	1082	2.43
TOTALS	2759	2.17	1924	2.54	1651	2.69	1669	2.78	8003	2.49

Academic Performance Controlled on High School Rank

On the surface, high school class size is related to academic status, with class size 51-100 most favorable, followed by class size 26-50. The "unknown" category also was in a favorable position, for reasons already given tentatively. Here we are concerned with controlling high school percentile rank in order to determine at what rank category the favored class sizes obtain their advantage. Again it was not possible to eliminate specials and graduate students, so they are included with undergraduates in the following tables. Some of them may be found in the "unknown" high school class size, since such data are not required of advanced students. It is therefore doubtful if comparisons can be made between the "unknown" category and other high school class size categories.

The first step in controlling on high school percentile rank was to separate into "upper half" and "lower half" of high school class as shown in Tables 23 and 24. In Table 23, the 51-100 class size had the highest per cent of students in the clear, both in the upper half and lower half of the class. In Table 24, class size 51-100 had the highest per cent of students in the clear from the upper half of the class, but class size 101-250 had the highest per cent of students in the clear from the lower half of the class. Class size 26-50 was also favorable, but the largest class sizes showed up to great disadvantages in both upper half and lower half distributions in both tables. When proportions of students in the upper half are compared on the basis of high school size for the distributions of Table 23, they appear as follows:

Class Size	No. in Upper Half/ No. in Lower Half	Proportion
1-25	51/64	0.80
26-50	297/364	0.82
51-100	990/1175	0.84
101-250	2066/2658	0.78
251-500	1602/2135	0.75
501-750	479/638	0.75
Over 750	117/156	0.75
Unknown	365/1149	0.32

The above proportions indicate a slight advantage for smaller class sizes. Despite this advantage, smaller class size is still associated with more frequent college success, whether they ranked in the upper or lower half of the class.

The "unknown" class size is distinctive in that only 32% of this group had ranked in the upper half of their high school class. As previously mentioned, many of the students in this category are mature students. Overall, about 92% of students who ranked in the upper half of the high school class were in the clear, compared to about 76.5% of the students who had ranked in the lower half of the high school class.

TABLE 23

SEMESTER I, 1971-72 UNDERGRADUATES, SPECIALS, AND GRADUATES BY HIGH SCHOOL CLASS SIZE, ACADEMIC STATUS, AND RANK IN UPPER OR LOWER HALF OF HIGH SCHOOL GRADUATING CLASS

UPPER HALF: PERCENTILES 50-99

H.S. Class Size	Academic Status						
	Non-Suspended or Probation		Probation		Suspended		Total
	No.	%	No.	%	No.	%	
1-25	51	91.1	3	5.4	2	3.5	56
26-50	297	92.0	19	5.9	7	2.1	323
51-100	990	93.7	49	4.6	18	1.7	1057
101-250	2066	91.7	135	6.0	52	2.3	2253
251-500	1602	90.0	119	6.7	58	3.3	1779
501-750	479	91.2	32	6.1	14	2.7	525
Over 750	117	85.4	14	10.2	6	4.4	137
Unknown	365	92.6	16	4.1	13	3.3	394
TOTALS	5967	91.5	387	5.9	170	2.6	6524

LOWER HALF: PERCENTILES 0-49

1-25	13	54.2	6	25.0	5	20.8	24
26-50	67	71.3	10	10.6	17	18.1	94
51-100	185	73.7	36	14.3	30	12.0	251
101-250	592	71.7	132	16.0	102	12.3	826
251-500	533	71.2	133	17.6	83	11.1	749
501-750	159	65.7	56	23.1	27	11.2	242
Over 750	39	75.0	5	9.6	8	15.4	52
Unknown	784	90.1	68	7.8	18	2.1	870
TOTALS	2372	76.3	446	14.4	290	9.3	3108

TABLE 24

SEMESTER I, 1972-73 UNDERGRADUATES, SPECIALS, AND GRADUATES BY HIGH SCHOOL CLASS SIZE, ACADEMIC STATUS, AND RANK IN UPPER OR LOWER HALF OF HIGH SCHOOL GRADUATING CLASS

UPPER HALF: PERCENTILES 50-99

H.S. Class Size	Academic Status						
	Non-Suspended or Probation		Probation		Suspended		Total
	No.	%	No.	%	No.	%	
1-25	36	90.0	2	5.0	2	5.0	40
26-50	201	94.4	9	4.2	3	1.4	213
51-100	765	96.5	17	2.1	11	1.4	793
101-250	1766	94.4	75	4.0	30	1.6	1871
251-500	1473	92.2	78	4.9	46	2.9	1597
501-750	482	92.1	27	5.2	14	2.7	523
Over 750	141	84.9	21	12.7	4	2.4	166
Unknown	973	86.4	87	7.7	66	5.9	1126
TOTALS	5837	92.2	316	5.0	176	2.8	6329

LOWER HALF: PERCENTILES 0-49

1-25	9	75.0	2	16.7	1	8.3	12
26-50	48	75.0	8	12.5	8	12.5	64
51-100	134	72.8	30	16.3	20	10.9	184
101-250	493	78.6	93	14.8	41	6.6	627
251-500	454	72.9	103	16.5	66	10.6	623
501-750	156	70.6	38	17.2	27	12.2	221
Over 750	31	59.6	12	23.1	9	17.3	52
Unknown	366	87.8	20	4.8	31	7.4	417
TOTALS	1691	76.9	306	13.9	203	9.2	2200

The next step was to separate the distributions into deciles of high school rank. Table 25 represents such a distribution for semester I, 1971-72, while Table 26 is a similar distribution for the first semester of 1972-73. In Table 25, all students in the small high school class sizes who had ranked in the top decile of the high school class (percentiles 90-99) were in the clear. The same could be said for class size 501-750. Since few students fall in some categories of the decile distributions, chance is more likely to explain any proportional differences observed in such a table. For decile 80-89, class size 51-100 had the highest proportion of students in the clear, with class size 101-250 second. Only slight differences in per cent of students in the clear were observed for various class sizes for decile 70-79. For decile 60-69, class size 51-100 came out highest and class size over 750 lowest. For decile 50-59, the proportion of students in the clear came out as follows: highest - class sizes 51-100 and 501-750; lowest - class size over 750. Class size 51-100 again had the advantage in decile 40-49. In the next two deciles, the highest proportion of students in the clear was found for class size 26-50. The lowest two deciles included so few students that generalizations concerning observed differences seems improper.

For comparison we turn to Table 26. Here the proportion of students in the clear is very high except for the "unknown" category. The same can be said for decile 80-89, with class size 51-100 ranking highest. In the 70-79 decile distribution, all students from the smallest two class sizes were successful. In decile 60-69, the three smallest class sizes ranked far ahead. In deciles 50-59 and 40-49, class size 101-250 had the highest proportion of successful students. For the lowest three deciles, there were no distinctive patterns of success observable relative to class size. It thus appears that much of the advantage enjoyed by students from small high school class sizes are found in the upper four deciles, as shown in Table 26, and in decile 20-29.

TABLE 25

DISTRIBUTION OF SEM. I, 1971-72 UNDERGRADUATES, SPECIALS, AND GRADUATES BY HIGH SCHOOL DECILE RANK, CLASS SIZE, AND ACADEMIC STATUS

DECILE 90-99

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
1-25	11	100.0	-	0.0	-	0.0	11
26-50	95	100.0	-	0.0	-	0.0	95
51-100	286	100.0	-	0.0	-	0.0	286
101-250	475	99.2	3	0.6	1	0.2	479
251-500	364	97.8	7	1.9	1	0.3	372
501-750	90	100.0	-	0.0	-	0.0	90
Over 750	19	95.0	1	5.0	-	0.0	20
Unknown	52	96.3	1	1.9	1	1.8	54
TOTALS	1392	98.9	12	0.9	3	0.2	1407

DECILE 80-89

1-25	15	88.2	1	5.9	1	5.9	17
26-50	66	94.3	1	1.4	3	4.3	70
51-100	227	97.4	5	2.2	1	0.4	233
101-250	503	96.5	14	2.7	4	0.8	521
251-500	393	94.7	16	3.9	6	1.4	415
501-750	117	94.4	5	4.0	2	1.6	124
Over 750	39	95.1	2	4.9	-	0.0	41
Unknown	46	96.3	-	0.0	1	2.1	47
TOTALS	1406	95.8	44	3.0	18	1.2	1468

TABLE 25 - Continued

DECILE 70-79

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
1-25	6	85.7	1	14.3	-	0.0	7
26-50	59	90.8	6	9.2	-	0.0	65
51-100	190	92.2	13	6.3	3	1.5	206
101-250	451	91.5	27	5.5	15	3.0	493
251-500	349	92.8	17	4.5	10	2.7	376
501-750	92	92.9	6	6.1	1	1.0	99
Over 750	24	92.3	1	3.8	1	3.8	26
Unknown	58	92.1	2	3.2	3	4.7	63
TOTALS	1229	92.1	73	5.5	33	2.5	1335
DECILE 60-69							
1-25	12	100.0	-	0.0	-	0.0	12
26-50	45	86.5	5	9.6	2	3.9	52
51-100	151	88.8	13	7.7	6	3.5	170
101-250	344	86.0	44	11.0	12	3.0	400
251-500	277	83.4	43	13.0	12	3.6	332
501-750	83	86.5	11	11.4	2	2.1	96
Over 750	22	78.6	5	17.8	1	3.6	28
Unknown	171	91.4	9	4.8	7	3.8	187
TOTALS	1105	86.5	130	10.2	42	3.3	1277

TABLE 25 - Continued

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
DECILE 50-59							
1-25	7	77.8	1	11.1	1	11.1	9
26-50	32	78.0	7	17.1	2	4.9	41
51-100	136	84.0	18	11.1	8	4.9	162
101-250	293	81.4	47	13.1	20	5.5	360
251-500	219	77.1	36	12.7	29	10.2	284
501-750	97	83.6	10	8.6	9	7.8	116
Over 750	13	59.1	5	22.7	4	18.2	22
Unknown	38	88.4	4	9.3	1	2.3	43
TOTALS	835	80.5	128	12.3	74	7.1	1037
DECILE 40-49							
1-25	1	50.0	-	0.0	1	50.0	2
26-50	24	72.7	4	12.1	5	15.2	33
51-100	72	80.0	9	10.0	9	10.0	90
101-250	237	76.9	41	13.3	30	9.8	308
251-500	215	76.0	45	15.9	23	8.1	283
501-750	54	62.1	23	26.4	10	11.5	87
Over 750	16	76.2	2	9.5	3	14.3	21
Unknown	420	86.2	59	12.1	8	1.7	487
TOTALS	1039	79.3	183	14.0	89	6.8	1311

TABLE 25 - Continued

DECILE 30-39

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
1-25	4	66.7	1	16.7	1	16.7	6
26-50	17	73.9	1	4.4	5	21.7	23
51-100	53	69.7	12	15.8	11	14.5	76
101-250	174	71.9	38	15.7	30	12.4	242
251-500	149	73.0	31	15.2	24	11.8	204
501-750	46	71.9	11	17.2	7	10.9	64
Over 750	6	66.7	1	11.1	2	22.2	9
Unknown	62	92.5	3	4.5	2	3.0	67
TOTALS	511	73.9	98	14.2	82	11.9	691
DECILE 20-29							
1-25	5	50.0	3	30.0	2	20.0	10
26-50	14	70.0	2	10.0	4	20.0	20
51-100	30	65.2	9	19.6	7	15.2	46
101-250	103	66.5	29	18.7	23	14.8	155
251-500	92	62.2	34	23.0	22	14.8	148
501-750	40	67.8	12	20.3	7	11.9	59
Over 750	9	69.2	1	7.7	3	23.1	13
Unknown	26	92.9	-	0.0	2	7.1	28
TOTALS	319	66.6	90	18.8	70	14.6	479

TABLE 25 - Continued

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
DECILE 10-19							
1-25	2	100.0	-	0.0	-	0.0	2
26-50	7	58.3	3	25.0	2	16.7	12
51-100	20	77.0	3	11.5	3	11.5	26
101-250	48	64.0	16	21.3	11	14.7	75
251-500	56	67.5	17	20.5	10	12.0	83
501-750	11	61.1	7	38.9	-	0.0	18
Over 750	6	85.7	1	14.3	-	0.0	7
Unknown	40	90.9	2	4.5	2	4.6	44
TOTALS	190	71.2	49	18.4	28	10.5	267
DECILE 0-9							
1-25	1	25.0	2	50.0	1	25.0	4
26-50	5	83.3	-	0.0	1	16.7	6
51-100	10	76.9	3	23.1	-	0.0	13
101-250	30	65.2	8	17.4	8	17.4	46
251-500	21	67.7	6	19.4	4	12.9	31
501-750	8	57.2	3	21.4	3	21.4	14
Over 750	2	100.0	-	0.0	-	0.0	2
Unknown	236	96.7	4	1.6	4	1.6	244
TOTALS	313	86.9	26	7.2	21	5.8	360

TABLE 26

DISTRIBUTION OF SEM. I, 1972-73 UNDERGRADUATES, SPECIALS, AND GRADUATES BY HIGH SCHOOL DECILE RANK, CLASS SIZE, AND ACADEMIC STATUS

DECILE 90-99

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
1-25	9	90.0	-	0.0	1	10.0	10
26-50	62	98.4	1	1.6	-	0.0	63
51-100	225	99.6	-	0.0	1	0.4	226
101-250	420	98.8	3	0.7	2	0.5	425
251-500	347	98.0	6	1.7	1	0.3	354
501-750	104	100.0	-	0.0	-	0.0	104
Over 750	28	96.6	1	3.4	-	0.0	29
Unknown	246	84.0	32	10.9	15	5.1	293
TOTALS	1441	95.8	43	2.9	20	1.3	1504

DECILE 80-89

1-25	12	92.3	-	0.0	1	7.7	13
26-50	42	93.3	3	6.7	-	0.0	45
51-100	185	99.5	-	0.0	1	0.5	186
101-250	409	96.2	12	2.8	4	1.0	425
251-500	361	98.4	5	1.3	1	0.3	367
501-750	125	94.7	4	3.0	3	2.3	132
Over 750	41	91.1	3	6.7	1	2.2	45
Unknown	137	84.1	15	9.2	11	6.7	163
TOTALS	1312	95.3	42	3.1	22	1.6	1376

TABLE 26 - Continued

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
DECILE 70-79							
1-25	6	100.0	-	0.0	-	0.0	6
26-50	39	100.0	-	0.0	-	0.0	39
51-100	151	95.0	5	3.1	3	1.9	159
101-250	379	95.5	14	3.5	4	1.0	397
251-500	321	94.7	10	2.9	8	2.4	339
501-750	94	92.2	5	4.9	3	2.9	102
Over 750	31	96.9	1	3.1	-	0.0	32
Unknown	224	88.8	14	5.6	14	5.6	252
TOTALS	1245	93.9	49	3.7	32	2.4	1326
DECILE 60-69							
1-25	5	100.0	-	0.0	-	0.0	5
26-50	32	94.1	2	5.9	-	0.0	34
51-100	106	95.5	2	1.8	3	2.7	111
101-250	292	89.6	23	7.0	11	3.4	326
251-500	256	87.1	25	8.5	13	4.4	294
501-750	75	89.3	7	8.3	2	2.4	84
Over 750	25	69.4	10	27.8	1	2.8	36
Unknown	164	88.7	8	4.3	13	7.0	185
TOTALS	955	88.8	77	7.2	43	4.0	1075

TABLE 26 - Continued

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
DECILE 50-59							
1-25	4	66.7	2	33.3	-	0.0	6
26-50	26	81.2	3	9.4	3	9.4	32
51-100	98	88.3	10	9.0	3	2.7	111
101-250	266	89.3	23	7.7	9	3.0	298
251-500	188	77.4	32	13.2	23	9.4	243
501-750	84	83.2	11	10.9	6	5.9	101
Over 750	16	66.7	6	25.0	2	8.3	24
Unknown	202	86.7	18	7.7	13	5.6	233
TOTALS	884	84.4	105	10.0	59	5.6	1048
DECILE 40-49							
1-25	1	50.0	1	50.0	-	0.0	2
26-50	16	84.2	1	5.3	2	10.5	19
51-100	50	76.9	9	13.9	6	9.2	65
101-250	192	85.0	23	10.2	11	4.8	226
251-500	182	77.8	34	14.5	18	7.7	234
501-750	56	80.0	7	10.0	7	10.0	70
Over 750	13	68.4	3	15.8	3	15.8	19
Unknown	77	82.8	5	5.4	11	11.8	93
TOTALS	587	80.6	83	11.4	58	8.0	728

TABLE 26 - Continued

DECILE 30-39

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
1-25	2	100.0	-	0.0	-	0.0	2
26-50	16	80.0	3	15.0	1	5.0	20
51-100	40	74.1	9	16.7	5	9.2	54
101-250	144	77.8	31	16.8	10	5.4	185
251-500	112	70.0	33	20.6	15	9.4	160
501-750	42	70.0	12	20.0	6	10.0	60
Over 750	4	36.4	4	36.4	3	27.2	11
Unknown	74	82.2	8	8.9	8	8.9	90
TOTALS	434	74.6	100	17.2	48	8.2	582
DECILE 20-29							
1-25	4	80.0	1	20.0	-	0.0	5
26-50	11	61.1	3	16.7	4	22.2	18
51-100	24	66.6	6	16.7	6	16.7	36
101-250	89	75.4	20	17.0	9	7.6	118
251-500	81	75.7	17	15.9	9	8.4	107
501-750	33	66.0	8	16.0	9	18.0	50
Over 750	5	50.0	3	30.0	2	20.0	10
Unknown	60	88.2	3	4.4	5	7.4	68
TOTALS	307	74.5	61	14.8	44	10.7	412

TABLE 26 - Continued

H.S. Class Size	Academic Status						Total
	Non-Suspended or Probation		Probation		Suspended		
	No.	%	No.	%	No.	%	
DECILE 10-19							
1-25	1	100.0	-	0.0	-	0.0	1
26-50	3	75.0	1	25.0	-	0.0	4
51-100	13	81.2	3	18.8	-	0.0	16
101-250	40	65.6	14	23.0	7	11.4	61
251-500	47	61.0	14	18.2	16	20.8	77
501-750	19	61.3	7	22.6	5	16.1	31
Over 750	6	75.0	1	12.5	1	12.5	8
Unknown	52	86.6	4	6.7	4	6.7	60
TOTALS	181	70.2	44	17.0	33	12.8	258
DECILE 0-9							
1-25	1	50.0	-	0.0	1	50.0	2
26-50	2	66.7	-	0.0	1	33.3	3
51-100	7	53.8	3	23.1	3	23.1	13
101-250	28	75.7	5	13.5	4	10.8	37
251-500	32	71.1	5	11.1	8	17.8	45
501-750	6	60.0	4	40.0	-	0.0	10
Over 750	3	75.0	1	25.0	-	0.0	4
Unknown	103	97.2	-	0.0	3	2.8	106
TOTALS	182	82.7	18	8.2	20	9.1	220

Correlational Analysis

To my knowledge, no one else has attempted to do what I have attempted as described in this section of the report. Pearson product-moment correlation coefficients are routine, though only approximate, measures of relationships of variables. Here the technique is used to determine relationships of selected variables, and to compare the coefficients among sub-populations for the same variables. The cumulative grade point ratio may be thought of as the independent variable being predicted. The predictors that are related to GPR are the high school percentile rank, the ACT English standard score, and the ACT Cumulative standard score. The sub-populations are students in various high school class sizes. One correlation is run for all students of a given high school class size, and a second correlation is run for only suspended students from that class size. The basic question then is to what extent is college performance related to traditional predictors, especially for students who are being suspended. A significantly positive correlation between GPR and a predictor for suspended students would suggest at least that these students are living up to their potential.

One problem posed in this procedure stems from the zero grade point ratios, especially those of suspended students. If included, these zero GPR's tend to bias the statistics, since multiplication by zero gives a product of zero. If excluded, we have omitted an important aspect of the study: the prediction of grossly inferior achievement. The researcher decided to exclude those cases in which the GPR was zero, for the following reasons: (1) a fair percentage of these cases turned out to be withdrawals, and (2) the remaining cases were so few as not to make it worth while to make all needed verifications.

Table 27 shows two sets of correlations between high school percentile rank and cumulative GPR for undergraduates, for various high school class sizes.

One set of correlations is for suspended students only, and the other for all students. The actual N's were used for the correlations of suspended students, but the large-sample method was used for all students; where the number cases was smaller, all were used, but where larger, a randomized large sample was used, both in Table 27 and Table 28. Significant but moderate correlations were found among all students between high school percentile and GPR at all high school class sizes except the "unknown" category, for which the correlation was essentially zero. For suspended students only the three smallest class sizes appeared to have any measurable relationship between the two variables, with class size 26-50 having the only r with a significant t ratio.

Table 28 gives a similar set of intercorrelations for ACT English scores and GPR. The three smallest class sizes showed fair correlations among suspended students. Small numbers of cases are responsible for the low critical ratios for class sizes 1-25 and 26-50.

Table 29 shows intercorrelations of ACT Composite scores and Cumulative GPR. Here again there were small but significant correlations among non-suspended students for all class sizes but the category listed "unknown". Only class size 51-100 showed a real correlation between the variables when suspended students only are used.

Tables 30-32 give similar correlations for semester I, 1972-73. This time the zero GPR's were checked out and included in the correlations for suspended students. These correlations were essentially zero for all three predictors. The small number of cases of suspended students made the r's very uncertain. For all students, the correlations between high school rank or ACT scores with GPR were again small but significant where enough cases were involved.

TABLE 27

CORRELATION OF HIGH SCHOOL RANK TO CUMULATIVE GPR:

SUSPENDED STUDENTS, SEM. I, 1971-72

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.2286	7	0.5250
26-50	0.4686*	22	2.4608
51-100	0.2293	39	1.4331
101-250	0.0948	132	1.0847
251-500	0.1252	122	1.3773
501-750	0.1811	37	1.0897
Over 750	0.1822	12	0.5860
Unknown	0.0173	3	0.0173

*Significant Correlations

ALL STUDENTS, SEM. I, 1971-72

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.3441*	80	3.2370
26-50	0.4915*	386	9.6561
51-100	0.5035*	606	12.4014
101-250	0.4781*	927	14.5762
251-500	0.5491*	764	15.1685
501-750	0.4927*	732	13.3523
Over 750	0.4381*	180	5.8647
Unknown	-0.0047	111	-0.0493

*Significant Correlations

TABLE 28

CORRELATION OF ACT ENGLISH SCORES TO CUMULATIVE GPR:

SUSPENDED STUDENTS, SEM. I, 1971-72

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.4489	8	0.8702
26-50	0.2570	36	1.0964
51-100	0.4075*	64	2.4848
101-250	0.0424	218	0.4426
251-500	0.0000	204	0.0000
501-750	0.2154	64	1.2281
Over 750	0.1009	20	0.3043
Unknown	0.0387	6	0.0548

*Significant Correlations

ALL STUDENTS, SEM. I, 1971-72

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.4302*	55	3.4721
26-50	0.3548*	311	6.2574
51-100	0.3609*	641	9.1367
101-250	0.3836*	966	11.9501
251-500	0.4015*	883	11.9494
501-750	0.3265*	641	8.2658
Over 750	0.3695*	153	4.5561
Unknown	0.1340	38	0.8116

*Significant Correlations

TABLE 29

CORRELATION OF ACT COMPOSITE SCORES TO CUMULATIVE GPR:

SUSPENDED STUDENTS, SEM. I, 1971-72

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.0969	8	0.1686
26-50	0.2451	36	1.0425
51-100	0.4419*	64	2.7430
101-250	0.1670	220	1.7524
251-500	0.0964	204	0.9737
501-750	0.0774	64	0.4322
Over 750	0.2662	20	0.8285
Unknown	0.2891	6	0.4271

*Significant Correlations

NON-SUSPENDED STUDENTS, SEM. I, 1971-72

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.2525	54	1.8999
26-50	0.1658*	310	2.9190
51-100	0.1729*	1080	5.6875
101-250	0.2517*	2627	12.9077
251-500	0.1946*	2087	8.8858
501-750	0.2078*	644	5.2741
Over 750	0.4745*	152	5.8508
Unknown	0.0173	37	0.1038

*Significant Correlations

TABLE 30

CORRELATION OF HIGH SCHOOL RANK TO CUMULATIVE GPR:

SUSPENDED STUDENTS, SEM. I, 1972-73

H.S. Class Size Category	r	n	Critical Ratio
1-25	-0.6922	3	-0.9591
26-50	-0.1740	11	-0.7761
51-100	0.1601	31	0.8734
101-250	0.0712	71	0.5890
251-500	0.2598*	112	2.7373
501-750	-0.0882	42	-0.5600
Over 750	0.1364	13	0.4540
Unknown	0.3428	26	1.7877

*Significant Correlations

ALL STUDENTS, SEM. I, 1972-73

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.2062	79	1.8492
26-50	0.5010*	387	9.8448
51-100	0.3079*	1213	10.7170
101-250	0.1275*	2953	6.9293
251-500	0.5385*	2720	28.0761
501-750	0.4799*	732	12.9668
Over 750	0.4361*	180	5.8185
Unknown	0.2769	31	1.5532

*Significant Correlations

TABLE 31

CORRELATION OF ACT ENGLISH SCORES TO CUMULATIVE GPR:

SUSPENDED STUDENTS, SEM. I, 1972-73

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.2204	3	0.2317
26-50	0.2546	7	0.6088
51-100	-0.0550	25	-0.2642
101-250	-0.0008	61	-0.0061
251-500	0.1744	94	0.0182
501-750	0.2424	37	1.2894
Over 750	0.3018	12	1.0500
Unknown	0.9895	3	1.0106

No Significant Correlations

ALL STUDENTS, SEM. I, 1972-73

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.4296*	55	3.4637
26-50	0.3238*	306	5.6559
51-100	0.3543*	1087	11.6777
101-250	0.3041*	2638	15.6189
251-500	0.4036*	2153	18.7285
501-750	0.3892*	644	9.8707
Over 750	0.3384*	152	4.1588
Unknown	0.1130	39	0.6966

*Significant Correlations

TABLE 32

CORRELATION OF ACT COMPOSITE SCORES TO CUMULATIVE GPR:

SUSPENDED STUDENTS, SEM. I, 1972-73

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.9931	3	8.4663
26-50	0.5385	7	1.4290
51-100	0.0855	25	0.4131
101-250	-0.0953	61	-0.7354
251-500	0.1132	94	1.0929
501-750	0.1467	38	0.8996
Over 750	0.4052	12	1.4016
Unknown	0.9892	3	6.7481

No Significant Correlations

ALL STUDENTS, SEM. I, 1972-73

H.S. Class Size Category	r	n	Critical Ratio
1-25	0.3987	55	3.1650
26-50	0.3480*	306	6.0786
51-100	0.4157*	1087	13.7014
101-250	0.4398*	2638	22.5886
251-500	0.4323*	2155	20.0696
501-750	0.3553*	644	9.0109
Over 750	0.4163*	152	5.1161
Unknown	0.1585	39	0.9748

*Significant Correlations

SUMMARY AND CONCLUSIONS

The earmarks of college success have been identified in various ways in this causal comparative study. For the most part, "success" is distinguished as meaning lack of academic difficulty as compared to academic suspension or academic probation. The populations studied were UW-Stevens Point undergraduates in the fall of 1971 and the fall of 1972.

One part of the study concerned analysis of sub-scores of about 1800 freshmen on the Omnibus Personality Inventory (OPI). The mean sub-scores of suspended students, probation students, and non-suspended, non-probation students were compared, and significant differences were determined through simple analysis of variance. The successful students tended to be those who had interest in a broad range of ideas and did not evaluate ideas solely on the basis of their immediate, practical application. Generally they tended to have diverse esthetic interests. They do not hate regulations, are not politically radical, and find appeal in straightforward reasoning. Successful students tend to be independent of authority, and to oppose infringements on the rights of individuals. They averaged low on the RO scale, showing strong commitment to Judaic - Christian beliefs, rejecting other viewpoints. College success tends to link with low scores on the IE scale, identifying students who observe regulations, are not troublemakers, and would be uncomfortable in anything other than fairly conventional dress. The successful students tend to be authoritarian and conservative, and to have non-intellectual interests. They tend to have interest in the welfare of others. They are less often anxious or worried than others.

In contrast, lack of college success as indicated by academic suspension or probation status is linked with dislike for esthetic activities and written essays, with having things explained to them rather than digging things out themselves, with taking a chance on things that are not known to work, with a

tendency to reject orthodox religious values. Lack of college success relates to a tendency toward rebellion, aggression, and hostility, toward impersonal feelings toward others. Those less successful tend to be interested in applied, practical activities.

All of these generalizations refer to tendencies having statistically significant mean differences. There are always exceptions.

When success is related to high school class size, it is found that class size 51-100 had the lowest per cent of probation and suspended students, with class size 26-50 having next lowest. Differences in proportions of students having academic difficulty according to class size were significant at the .001 level.

Women consistently did better than men in the proportion of their numbers who were "in the clear". This was true at every class level, though the differences were less evident among seniors.

Age and academic status showed little relationship to each other, but marital status does differentiate slightly. In both semesters for which per cents were computed, more married students, proportionally, than single students were in the clear, though differences sometimes came out favorable to single students at some class levels.

There were significant differences in academic success according to type of housing. Residence hall students, commuters, and students living at home all had high proportions of students in the clear. Underclassmen living in "other" housing had more than their share of students suspended.

In both populations studied, students from out-of-state had the greatest proportion of suspensions and probations compared to Wisconsin residents, but they had ranked lower in their high school classes on the average.

There were some noticeable differences in academic success on the basis of first major, but for most majors there were too few cases to draw conclusions. Difficulty was most likely to be experienced by majors in forestry and wildlife,

and to some extent business administration and resource management. One might suspect that many of these students were of the calibre to have high expectancy of college success. Comparatively fewer students majoring in elementary and home economics education, mathematics, music, and political science had academic difficulty. Students whose majors were undecided or unknown were prone to academic difficulty.

Pursuing the matter of high school class size further, we find that the smaller the class size, the greater the ratio of seniors to freshmen. This fact suggests one or both of two possibilities: a much higher retention rate for students from small class sizes or (inexplicably) a greater proportion of transfers in for students from small class sizes. When grade point ratios are examined, the 101-250 class size has the highest averaged ratio for freshmen in one case, with class size 51-100 highest in two other cases. By the sophomore or junior year class size 26-50 had the highest ratio. By the senior year the advantage was with the two smallest class sizes. An exception is made for students in the class size category labeled "unknown", which at the start had the highest averaged grade point ratio. These are largely older students who, because of maturity, were more highly motivated to do college work. But for this exception, the students from the three smallest class sizes had the overall highest averaged grade point ratios. A little, but not much, of the advantage for the smaller class sizes is due to the fact that a slightly higher proportion of these students had ranked in the upper half of the high school class. When the proportion of students having academic difficulty is compared for various class sizes on the basis of those ranking in upper or lower half of the high school class, the advantage goes to class size 51-100 for the upper half category. For the lower half category, the advantage in one case is found with class size 51-100 and in the other case with class size 101-250, since they had the highest proportion of students in the clear. For the lower half category,

however, the "unknown" class size outstripped all others, probably because they were mostly older and more highly motivated students.

When students were distributed by class size and academic status for each decile rank in high school class size, the smallest class sizes held some advantage for the top two deciles. Differences among class size groups were very slight concerning per cent of students having no academic difficulty. In lower deciles, the advantage was alternately held by class sizes 26-50, 51-100, and 101-250. When the overall class size picture is presented, there is a persistent advantage in academic performance for students in class size 51-100. Students in the "unknown" category did exceptionally well.

When correlations are computed between three predictors and the GPR for students from various high school class sizes, there are relatively small but significant correlations for high school rank, ACT English, and ACT Composite scores with GPR for all class sizes. When similar correlations are computed for suspended students only, real correlations are found only for the students from the three smallest class sizes, and only in some cases. Thus in general the predictors of academic performance do not hold for suspended students except in some cases for small class size categories. Class size 51-100 is the exception in one population studied. High school percentile rank is still the best predictor. English ACT is clearly a better predictor than ACT Composite score for all students. Suspended students for 1972-73 had so few cases in some categories that the wide varieties of correlations, negative and positive, are chance cancellations and therefore meaningless.

The conclusions of this study are tentative, but they point the way toward needed further investigation. There is good evidence that we can identify some of our potentially problem college students by means of the Omnibus Personality Inventory. Here we see that successful college students tend to be those with broad general interests rather than students who make practical "here and now" decisions. More often than not the successful students are

"squares" with conservative religious convictions; they are people who cooperate with authority figures instead of rebelling. Further research is needed along this line to see if the tentative findings are reinforced.

The composite picture presented by the high school size investigations tends to favor students from small class sizes, particularly class size 51-100. This is in line with the investigators numerous previous findings. Similar investigations need to be done by other institutions and in other states than Wisconsin.

Further needed investigations are pointed out by several other findings of this study. In some cases cause and effect relationships may be determined by further research.

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